

*S/PRAS***10/506316****Method of creating a stage set**

The present invention relates to a method of creating a stage set with at least one stage element which can be moved on a stage, and to a stage element for implementing the method.

A wide variety of such methods of creating stage sets are known. For example, individual upright walls which are set up on rollers, for the task of changing over a stage, are moved onto the stage, once a curtain has been let down, in order to create a new stage set.

It is also known that very costly revolving stages with fixed stage sets, backdrops, studios, etc. are provided in order, for example following rotation of the stage, to obtain a different stage set or a different arrangement of stage sets. In this case, a turntable of a revolving stage is rotated in order to produce a different stage set. In the region which cannot be seen, the stage area can then be changed over.

The disadvantage, however, is that conventional methods require a very large number of staff in order to change over the individual stage sets and stage walls between individual scenes during breaks, to push the previous stage elements out of the stage area, to change them over and to push in other stage elements, etc. In addition, this all needs undesirably large secondary stages and storage areas.

Furthermore, revolving stages are very costly to produce and permit only a restricted arrangement of a stage or studio, rotation of the stage being necessary for changeover purposes, although the basic structure of the stage set cannot be changed over without considerable outlay.

The object of the present invention is thus to provide a method and a stage element of the type mentioned in the introduction by means of which the above-mentioned disadvantages are eliminated and a stage set, a studio or the like can be changed over very cost-effectively, straightforwardly and quickly. In addition, the intention is for it to be possible to reduce the operating costs of a stage or of a studio, in particular also as far as the staff-related costs are concerned.

It is also intended for it to be possible to reduce, or cut out altogether, breaks for changeover and conversion purposes.

In addition, it is intended for it to be possible to use a plurality of stage elements to provide for the universal use and creation of any desired stage set.

This object is achieved by the features of the main claim and those of the independent claims.

In the case of the present invention, a plurality of stage elements are each independently arranged in an actively drivable and displaceable manner on a stage. The individual stage elements may be rectangular, square, triangular,

polygonal, round and/or oval in cross section. The invention is not restricted to these shapes. The individual stage elements may be fitted out with stage components on the corresponding sides, or with any desired objects such as staircases or the like.

The individual stage components can be connected in a re-releasable manner to the side parts of the chassis of the stage element.

At least one drive element is preferably provided, in particular in the region of the substructure, the stage element preferably being set up on a plurality of roller elements, which may be of active or inactive design. At least the individual roller elements can be actively moved about a control axis, in order to steer the stage element during active movement on the stage.

Via an internal control unit and at least one energy source, each stage element can be moved to any desired position individually, or simultaneously with others, on a wireless basis, for example by remote control, from an external control center 14. In order that a plurality of stage elements can be moved to form a certain stage arrangement, the individual stage elements can also be displaced simultaneously, in a positionally accurate and precise manner, on the stage by computer control via the external control center.

Via corresponding transmission motors, which also allow precise conclusions to be drawn in respect of the distance covered, each stage element can be pivoted, displaced and rotated about any desired fixed points, with the result that each individual stage element can move precisely to any desired position.

Stage-set areas can thus be produced as desired by different stage elements being differently displaced and lined up in different arrangements.

It is also conceivable for it to be possible for a plurality of stage elements to be coupled to one another via connecting elements, and then for an entire arrangement of stage elements to be actively driven, rotated or displaced together. This ensures that it is possible to realize, for example, very short conversion or changeover times, no staff being necessary for this purpose.

In addition, it is ensured that very new effects and sets can be produced even while, for example, the theatre or studio production is underway, and changeover or conversion times can thus be cut out altogether. A wide variety of different stage sets can thus be produced very cost-effectively.

Accordingly, regions which cannot be seen can be converted in the usual way even while the production is underway, with the result that different arrangements of stages can then be reproduced by virtue of individual stage

elements being displaced. As a result of the individual stage elements, which are each supplied with a dedicated energy source, being actively driven on a wireless basis, the stage set can be changed over, without any staff being required, even while the production is underway.

Further advantages, features and details of the invention can be gathered from the following description of preferred exemplary embodiments and with reference to the drawing, in which:

Figure 1 shows a schematically illustrated side view of a stage element for creating a stage set;

Figure 2 shows a schematically illustrated cross section through a stage element for creating a stage set;

Figures 3a to 3c show arrangements of a plurality of stage elements for creating different stage sets; and

Figures 4a and 4b show respective plan views of possible arrangements of different stage sets comprising a plurality of stage elements.

According to figure 1, a stage element R₁ according to the invention has a chassis 1 which, made of tubular frames, frame elements or the like, forms a preferably rectangular body or tower. The cross-sectional shape is illustrated in figure 2. The rectangular cross-sectional shape of the stage element R₁ forms side parts 2 and 3 of different lengths which serve for securing in a re-releasable manner a component 4 of a stage set, of a stage arrangement,

of a backdrop or the like.

A plurality of actively driven drive elements 7 and/or roller elements 8 are provided in the region of a substructure 5 in the vicinity of a stage 6. The roller elements 8 can be moved back and forth about a control axis 9 in a state in which they can be actuated by means of the drive element 7.

At the same time, each roller element 8 can preferably be actively driven about a drive axis 10 by means of the drive element 7, with the result that the stage element R_1 can be displaced in any desired directions on the stage 6.

Via at least one energy source 11, the individual drive elements 7 and/or roller elements 8 can be driven about the drive axes 10 and steered about the control axes 9.

The respective individual drive elements 7 and/or roller elements 8 can be actuated via a control unit 12. The control unit 12 is connected on a wireless basis to an external control center 14 via an antenna 13, which is only schematically illustrated here. Via the external control center 14, the stage element R_1 can be actively and independently moved in any desired directions x and z on a wireless basis by remote control, as is indicated in figures 1 and 2.

As a result of corresponding actuation of individual roller elements 8, in particular the control axes 9 thereof,

by rotation of the roller elements 8 about the control axes 9, the stage element R_1 can be displaced and rotated in all desired directions x and z. It is possible here for the stage element R_1 to be pivoted about any desired fixed points 15.

Via measuring systems, which are correspondingly not illustrated here, it is possible to determine with precision and very high accuracy, via the drive elements 7, the distance covered and the precise position of the stage element R_1 in relation to the stage 6; in particular the stage element can actively move to this precise position.

The stage element R_1 can be independently positioned and displaced on the stage 6 and preferably controlled via the external control center 14.

It is also intended to lie within the framework of the present invention that, for example, an individual stage element R_1 may be assigned just one drive element 7 with an actively drivable roller element 8, which performs the drive movement of the stage element R_1 . The rest of the roller elements 8 which remain may be driven, for example, just on an active basis for steering via the control axis 9, in order to move the stage element R_1 into any desired position on the stage 6.

In this way, a plurality of individual stage elements R_1 to R_5 can be used to produce any desired stage set, it also being possible for the individual stage elements R_1 to R_4 to be displaced simultaneously in different ways as

desired to form a stage set of any desired arrangement. It is also intended to be conceivable here for the individual stage elements arranged one beside the other, for example R₁ and R₂ and also R₃ and R₄, to be coupled to one another, in particular by locking elements or the like (not illustrated here).

It is thus possible to utilize, for example, a visible region 16 at the front as a stage set, while the rear region 17, in contrast, can be fitted out with different stage sets or can be fitted out with components 4 of different stage sets, converted or changed over for a next scene or different set-up. As can further be gathered from figure 3a, it is also conceivable for a stage element R₅ to be square in cross section.

According to figure 3b, it is possible, for example by active dedicated driving of the individual stage elements R₁ to R₅, for the stage set to be changed over very quickly and on an independent basis, even during the performance or in a short break, by active driving and movement of the stage elements R₁ to R₅.

The external control center 14 thus also actively controls each individual stage element R₁ to R₅ simultaneously. Should the latter be joined together to form an interlocking arrangement, it is also possible, for example, for the interlocking arrangement to be displaced together, in an actively driven state, on the stage 6.

Each stage element R_1 to R_5 can be displaced specifically and separately, if it is not connected to other stage elements, into any desired position, with the result that the stage set can be slowly and continuously changed over even, for example, while a play or musical or some other performance is underway. This means that it is possible to realize significantly fewer changeover times and conversion times, and changing sets and effects are achieved while a performance is underway.

In the exemplary embodiment of the present invention according to figure 3c, a further arrangement and changeover is possible by active individual displacement of the individual stage elements R_1 to R_5 , it being possible for the individual components 4 of the stage elements R_1 and R_2 to be changed over, exchanged or altered as a result of this changeover, in a region 17.

The individual movement and individual positioning of the individual stage elements R_1 on the stage 6 means that it is no longer necessary for, for example, a curtain to conceal the changeover process; rather this process takes place seamlessly by displacement of the individual stage elements R_1 to R_5 .

It is also conceivable, as is illustrated in figures 4a and 4b in particular, for any desired arrangement comprising a plurality of stage elements R_1 to R_5 to be rotated for example through 180° , as an independent

arrangement, about any selectable fixed point 15, it not being imperative for the individual stage elements R₁ to R₅ to be coupled to one another or connected to one another. Since each individual stage element R₁ to R₅ can be actively driven, it is possible for the individual stage elements R₁ to R₅ to be driven such that they always permanently maintain the overall arrangement even during a rotation through 180°.

It is thus possible, following such straightforward rotation, to set up, for example, a new visible region 16 as a new stage set, it being possible for a rear region 17, for example, to be changed over. This is likewise intended to lie within the framework of the present invention.

List of designations

1	Chassis	34		67	
2	Side part	35		68	
3	Side part	36		69	
4	Component	37		70	
5	Substructure	38		71	
6	Stage	39		72	
7	Drive element	40		73	
8	Roller element	41		74	
9	Control axis	42		75	
10	Drive axis	43		76	
11	Energy source	44		77	
12	Control unit	45		78	
13	Antenna	46		79	
14	External control center	47			
15	Fixed point	48			
16	Visible region	49		R ₁	Stage element
17	Region	50		R ₂	Stage element
18		51		R ₃	Stage element
19		52		R ₄	Stage element
20		53		R ₅	Stage element
21		54			
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